

REMARKS

Claims 1-20 remain in the present application. Applicants respectfully request further examination and reconsideration of the rejections based on the above amendments and the arguments set forth below.

Specification amendments

Applicants have herein amended the specification of the present application to correct a typographical error with respect to the standard four wire Category Five patch cable.

35 U.S.C. Section 112 rejections

Claims 1, 7, 8, 10, 12, 13, 16, 18, and 20 have been amended to obviate the cited 35 U.S.C. Section 112 rejections. Specifically, the specification the present application has been amended to correct the error with respect to the standard four wire (e.g., four pairs) Category Five patch cable. Claims 1, 8, and 10 have been amended with respect to the limitation regarding the transmission of the reset signal and the socket. These limitations are supported in specification, for example, at page 28 lines 8 to 14. Claims 7, 13, 16, 18, and 20 have been amended with respect to the limitation regarding the interface.

35 U.S.C. Section 103 rejections

The above referenced Office Action rejects independent Claims 1, 7 and 13 as being unpatentable over U.S. Patent No. 5,663,900 (hereafter Bhandari) in view of U.S. Patent No. 6,161,199 to Szeto et al (hereafter Szeto). Applicants respectfully traverse, and point out that independent Claims 1, 7, and 13 have been amended to more particularly point out aspects of the present invention.

With respect to Claim 1, Applicants point out that the cited combination does not disclose a combined in-circuit emulation system and programmer as in the claimed invention. For example, the cited combination does not disclose or suggest an interface connecting the pod to the base station, the interface having a reset line connected to transmit a reset signal to the emulation microcontroller without transmitting the reset signal to the socket. Claim 1 further recites the emulation microcontroller can be placed in a sleep mode (e.g., using the reset signal) so that a microcontroller residing in the socket can be programmed by receiving programming information from the base station without the programming being disturbed by actions of the emulation microcontroller. Applicants point out that this enables the in-circuit emulation system to function as a programmer or as an in circuit emulator. These features are not shown or suggested by the cited combination.

With regard to the cited combination, Bhandari is relied upon to show a simulation environment with computer models and a pod. Szeto is relied upon to show in system programming. The combined references do not teach, disclose, or suggest the use of a reset signal being transmitted via a reset signal line to one microcontroller but not another microcontroller mounted in the same pod. The combined reference does not teach, disclose, or suggest the implementation of a sleep mode so that a microcontroller residing in the socket can be programmed by receiving programming information from the base station without the programming being disturbed by actions of the emulation microcontroller.

Accordingly, Applicants assert that the present invention as cited in independent Claim 1 is not rendered obvious by the cited combination within the meaning of 35 U.S.C. Section 103.

With respect to Independent Claim 7, for the rationale described above, the cited combination does not teach, disclose, or suggest an interface configured to couple programming code to the device to be programmed and to the device under test. The cited combination does not disclose or suggest the use of the data lines of the interface to carry programming instructions to both the device to be programmed and to carry communications with the device under test during emulation operations. Applicants point out that the Bhandari and the Szeto solutions are directed towards different problems.

Bhandari is directed towards simulation for an electronic design automation system. Szeto is directed towards debugging production microcontrollers by adding additional oscillator pins. These solutions are completely different from the combined ICE apparatus and programming apparatus of the claimed invention.

With respect to Claim 13, for the rationale described above, Applicants assert that the cited combination does not teach, disclose, or suggest a combined ICE and programming method using an interface configured to couple programming code to the pod and to the programmable device, and programming the programmable device residing in the socket of the pod while the emulation device is in the sleeping state.

Accordingly, Applicants assert that the claimed invention as recited in independent Claims 1, 7 and 13 is not rendered obvious by the Bhandari and Szeto combination within the meaning of 35 U.S.C. Section 103.

CONCLUSION

Applicants respectfully assert that all claims (Claims 1-20) are in condition for allowance and Applicants earnestly solicit such action from the Examiner.

The Examiner is urged to contact Applicants' undersigned representative if the Examiner believes such action would expedite resolution of the present Application.

Please charge any additional fees or apply any credits to our PTO deposit account number: 23-0085.

Respectfully submitted,

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